In the Claims

Please add the following claims:

15.   A channel director comprising:

multiple ESCON input and output ports;

a switch matrix for connecting the ESCON ports; and

a multiple interface facility device comprising:

a multiplexer module for converting at least four ESCON output ports to a

single output data stream on an output fiber optic data link; and

a demultiplexer module for converting a single input data stream on an

input fiber optic data link to at least four ESCON input ports.

16.   The channel director of Claim 15 wherein the multiplexer module comprises:

a first multiplexer for multiplexing at least two of the ESCON output ports into a

first intermediate output stream;

a second multiplexer for multiplexing at least two other of the ESCON output

ports into a second intermediate output stream;

a serializing transmitter coupled to the first and second multiplexers for serializing

the first and second intermediate output streams into the single output data stream.

17.   The channel director of Claim 16 wherein the multiplexer module further comprises a

signal for synchronizing the serializing of the first and second intermediate output

streams and tagging output data in the single output data stream as corresponding with

data from each of the respective ESCON output ports.

18.   The channel director of Claim 17 wherein the multiplexer module further comprises an

optical transmitter for transmitting the single output data stream onto the output fiber

optic data link.

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19.   The channel director of Claim 15 wherein the demultiplexer module comprises:

a receiver for de-serializing the input data stream into first and second intermediate parallel data streams;

a first demultiplexer for demultiplexing the first intermediate parallel data stream into two parallel data streams on two respective ESCON input ports:

a second demultiplexer for demultiplexing the second intermediate parallel data stream into two other parallel data streams on two other ESCON input ports.

20.   The channel director of Claim 19 wherein the demultiplexer module further comprises a signal for synchronizing the de-serializing of the first and second intermediate output streams and tagging data in the input data stream as corresponding to data in each of the respective ESCON input ports.

21.   The channel director of Claim 20 wherein the demultiplexer module further comprises an optical receiver for receiving the input data stream from the input fiber optic data link.

22.   A multiple interface facility device adapted for use with ESCON ports, the device comprising:

a multiplexer module for converting at least four ESCON output ports to a single output data stream on an output fiber optic data link; and

a demultiplexer module for converting a single input data stream on an input fiber optic data link to at least four ESCON input ports.

23.   The multiple interface device of Claim 22 wherein the multiplexer module comprises:

a first multiplexer for multiplexing at least two of the ESCON output ports into a first intermediate output stream;

a second multiplexer for multiplexing at least two other of the ESCON output ports into a second intermediate output stream;

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a serializing transmitter coupled to the first and second multiplexers for serializing the first and second intermediate output streams into the single output data stream.

24. The multiple interface device of Claim 23 wherein the multiplexer module further comprises a signal for synchronizing the serializing of the first and second intermediate output streams and tagging output data in the single output data stream as corresponding with data from each of the respective ESCON output ports.

25. The multiple interface device of Claim 24 wherein the multiplexer module further comprises an optical transmitter for transmitting the single output data stream onto the output fiber optic data link.

26. The multiple interface device of Claim 22 wherein the demultiplexer module comprises:

a receiver for de-serializing the input data stream into first and second intermediate parallel data streams;

a first demultiplexer for demultiplexing the first intermediate parallel data stream into two parallel data streams on two respective ESCON input ports:

a second demultiplexer for demultiplexing the second intermediate parallel data stream into two other parallel data streams on two other ESCON input ports.

27. The multiple interface device of Claim 26 wherein the demultiplexer module further comprises a signal for synchronizing the de-serializing of the first and second intermediate output streams and tagging data in the input data stream as corresponding to data in each of the respective ESCON input ports.

28. The multiple interface device of Claim 27 wherein the demultiplexer module further comprises an optical receiver for receiving the input data stream from the input fiber optic data link.

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29.   A system comprising:

        a fiber optic data link;

        a channel director at a first location, the channel director comprising multiple

ESCON input and output ports, a switch matrix for connecting the ESCON ports and a

multiplexer module for converting at least four ESCON output ports to a serial data

stream on one end of the fiber optic data link; and

        a demultiplexer module at a second location, the demultiplexer module coupled to

the other end of the fiber optic data link for receiving the serial data stream and

converting the serial data stream to at least four ESCON input ports.

30.   The system of Claim 29 further comprising a second fiber optic data link and a second

multiplexer module at the second location for converting at least four ESCON output

ports to a second serial data stream on one end of the second fiber optic data link and

wherein the channel director further comprises a second demultiplexer module at the first

location, the second demultiplexer module coupled to the other end of the second fiber

optic data link for receiving the second serial data stream and converting the second serial

data stream to at least four ESCON input ports.